



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Daniel P. Becker, et al.  
Serial No: 10/657,034  
Filed: September 5, 2003  
For: Aromatic Sulfone Hydroxamic Acids and Their Use as Protease Inhibitors  
Confirmation No: TBA  
Art Unit: TBA  
Examiner: TBA  
Attorney Ref: 3316/0A/US  
HDP Ref: 6794-000005/DVC

September 26, 2003

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Madam/Sir:

To comply with 37 CFR §1.97 and §1.98, Applicants submit the enclosed supplemental Form HDP-1449. Applicants also submit copies of all documents listed on the Form HDP-1449.

In accordance with MPEP §609 and §707.05(b), Applicants request that each document listed be given thorough consideration, and that the Examiner cite each document of record in the prosecution history of the above-referenced application by initialing the Form HDP-1449 next to each document. Applicants request such initialing even if the Examiner does not consider: (1) a listed document to be sufficiently pertinent to use in a rejection; (2) a document to be prior art for any reason; or (3) that the guidelines for citation have been fully complied with respecting a particular document. Applicants make this request so that each document becomes cited on the face of a patent issuing from the above-referenced application.

Applicants submit this Information Disclosure Statement in compliance with the duty to disclose information material to patentability under 37 CFR §1.5, but by listing such documents Applicants are not admitting that such documents are necessarily relevant or prior art. Applicants intend no representation that the listed documents represent the results of a complete search. Applicants anticipate that the Examiner, in the normal course of examination, will make an independent search consistent with 37 CFR §1.104(a) and §1.106(b), and, in the course of

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Supplemental Information Disclosure Statement

September 26, 2003

Appl. No. 10/657,034

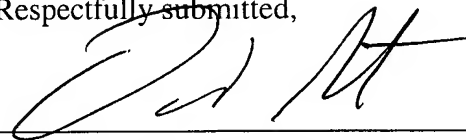
such search, will review for relevance every document listed on the attached form even if not initialed.

Applicants make no representation as to the accuracy of any translation provided with this Information Disclosure Statement.

\* \* \* \* \*

Applicants request early and favorable consideration. Applicants believe that they do not owe any fee in connection with this Information Disclosure Statement. If, however, Applicants do owe any such fee(s), the Commissioner is hereby authorized to charge the fee(s) to Deposit Account No. **08-0750**. In addition, if there is ever any other fee deficiency or overpayment under 37 C.F.R. §1.16 or §1.17 in connection with this patent application, the Commissioner is hereby authorized to charge such deficiency or overpayment to Deposit Account No. **08-0750**.


Respectfully submitted,



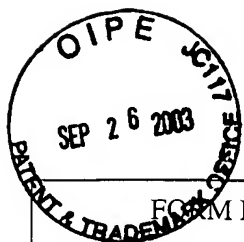
David M. Gryte, PTO Reg. No. 41,809  
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CERTIFICATE OF MAILING UNDER 37 CFR § 1.8

I certify that this correspondence is being deposited with the U.S. Postal Service on **September 26, 2003** with sufficient postage as first class mail (including Express Mail per MPEP § 512), and addressed to **Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450**.



DMG/PML



FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE**  
**INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 1 of 3

ATTORNEY DOCKET No.

3316/0A/US

SERIAL No.

10/657,034

APPLICANT

Daniel P. Becker, et al.

FILING DATE

September 5, 2003

GROUP

Unknown

**U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
35.		WO 99/25687	5/27/99	PCT	C07D 211/66		
36.		WO 99/42436	8/26/99	PCT	C07C 239/14		
37.		WO 00/46221	08/10/00	PCT	C07D 405/12		
38.		WO 00/50396	08/31/00	PCT	C07D 211/66		
39.		WO 00/59874	10/12/2000	PCT	C07C 259/06		
40.		WO 00/69821	11/23/00	PCT	C07D 211/66		

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
41.		Brown, "Synthetic Inhibitors of Matrix Metalloproteinases"; <i>Matrix Metalloproteinases</i> , pp. 243-261 (Academic Press, San Diego, CA, Eds. Park, W.C., & Mecham, R.P., 1998)
42.		Dack, et al., "Preparation of N-hydroxytetrahydropyridylsulfonylacetamides and related compounds as matrix metalloprotease inhibitors," CA 131:44740 (1999)
43.		Denis, et al., "Matrix metalloproteinase inhibitors: Present achievements and future prospects," <i>Invest. New Drugs</i> , 15:175-185 (1997)
44.		Freije, et al., "Molecular cloning and expression of collagenase-3, a novel human matrix metalloproteinase produced by breast carcinomas," <i>J. Biol. Chem.</i> , 269(24), pp. 16766-16773 (1994)
45.		Gearing, et al., "Processing of tumour necrosis factor- $\alpha$ precursor by metalloproteinases", <i>Nature</i> , 370:555-557 (1994)

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Sheet 2 of 3

ATTORNEY DOCKET NO.

3316/OA/US

SERIAL NO.

10/657,034

APPLICANT

Daniel P. Becker, et al.

FILING DATE

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GROUP

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**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
46.		Gu, et al., "S-Nitrosylation of Matrix Metalloproteinases: Signaling Pathway to Neuronal Cell Death," <i>Science</i> , 297, 1186-1190 (2002)
47.		Hughes, et al., "Monoclonal antibodies that specifically recognize neoepitope sequences generated by 'aggrecanase' and matrix metalloproteinase cleavage of aggrecan: application to catabolism <i>in situ</i> and <i>in vitro</i> ," <i>Biochem. J.</i> , 305, 799-804 (1995)
48.		Kenyon, et al., "A Model of Angiogenesis in the Mouse Cornea," <i>Investigative Ophthalmology &amp; Visual Science</i> , Vol. 37, No. 8:1625-32 (July 1996)
49.		Knight, et al., "A novel coumarin-labelled peptide for sensitive continuous assays of the matrix metalloproteinases," <i>FEBS Lett.</i> , 296(3):263-266 (1992)
50.		Kuzmic, et al., "High-throughput screening of enzyme inhibitor: simultaneous determination of tight-binding inhibition constants and enzyme concentration," <i>Anal. Biochem.</i> , 286, 45-50 (2000)
51.		Luckow, et al., "Insect Cell Expression Technology", <i>Protein Engineering: Principles and Practice</i> , pp. 183-218 (John Wiley & Sons, Inc., New York, NY, Edited by J.L. Cleland et al., 1996)
52.		Luckow, et al., "Efficient generation of infectious recombinant baculoviruses by site-specific transposon-mediated insertion of foreign genes into a baculovirus genome propagated in escherichia coli," <i>J. Virol.</i> , 67(8):4566-4579 (1993)
53.		McClure, et al., "Matrix metalloprotease (MMP)-13 selective inhibitors for treatment of arthritis deformans and other MMP-related diseases," CA 131:125454 (1999) [CA Plus Accession No. 1999:468334]
54.		McGeehan, et al., "Regulation of tumour necrosis factor- $\alpha$ processing by a metalloproteinase inhibitor," <i>Nature</i> , 370:558-561 (1994)
55.		Mitchell, et al., "Cloning, expression, and type II collagenolytic activity of matrix metalloproteinase-13 from human osteoarthritic cartilage," <i>J. Clin. Invest.</i> , 97(3):761-768 (1996)
56.		Rasmussen, et al., "Matrix metalloproteinase inhibition as a novel anticancer strategy: a review with special focus on batimastat and marimastat," <i>Pharmacol. Ther.</i> , 75(1):69-75 (1997)
57.		Reboul, et al., "The new collagenase, collagenase-3, is expressed and synthesized by human chondrocytes but not by synoviocytes," <i>J. Clin. Invest.</i> , 97(9):2011-2019 (1996).
58.		Schwartz, et al., "Synthetic inhibitors of bacterial and mammalian interstitial collagenases," <i>Prog. in Med. Chem.</i> , 29:271-334 (1992).
59.		Tang, "ADAMTS: a novel family of extracellular matrix proteases," <i>Int'l J. Biochem. Cell Biol.</i> , 33, 33-44 (2001)

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Date Considered:

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Sheet 3 of 3

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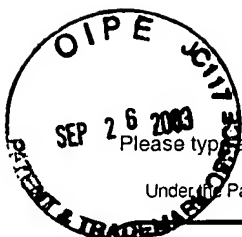
**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
60.		Woessner, "The Matrix Metalloproteinase Family," <i>Matrix Metalloproteinases</i> , pp. 1-14 (Academic Press, San Diego, CA, Eds. Parks, W.C. & Mecham, R.P., 1998)

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Approved for use through 10/31/2002. OMB 0651-0031

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	<b>Application Number</b>	10/657,034	
	<b>Filing Date</b>	September 5, 2003	
	<b>First Named Inventor</b>	Daniel P. Becker, et al.	
	<b>Group Art Unit</b>	TBA	
	<b>Examiner Name</b>	TBA	
<b>Total Number of Pages in This Submission</b>		<b>Attorney Docket Number</b>	3316/0A/US (6794-000005/DVC)

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Response  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input checked="" type="checkbox"/> Supplemental Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application)  <input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  <b>FORM HDP-1449</b> <b>26 References</b> <b>Return Receipt Postcard</b>
<b>Remarks</b>		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	David M. Gryte, PTO Reg. No. 41,809 Harness, Dickey & Pierce, P.L.C.
Signature	
Date	September 26, 2003

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Typed or printed name	David M. Gryte		
Signature		Date	September 26, 2003

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